Displacement Risk in New Mexico: An Analysis Using U.S. Census and Eviction Data

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1. Introduction

This project develops a **Displacement Risk Score (DRS)** for New Mexico census tracts by integrating American Community Survey (ACS) data with eviction data from Eviction Lab. By analyzing key factors (rent burden, income disparity, homeownership rates, and eviction filings) I assess which populations and geographic areas are most at risk. The study further examines displacement risks across renters, homeowners, racial/ethnic groups, seniors, and children.

2. Data Sources

2.1. ACS Data (Census Tract Level)

I retrieved data from the ACS 5-year estimates at the census tract level for New Mexico using the tidy census package. The following variables were extracted:

- Housing Tenure: Renter-occupied units (B25003_003), Owner-occupied units (B25003_002)
- Racial/Ethnic Composition: White alone (B03002_003), Black alone (B03002_004), Asian alone (B03002_006), Hispanic or Latino (B03002_012)
- Population Totals: Total population (B01003_001)
- Age Groups: Seniors (65+ years, using several B01001_* variables), Children (<18 years, using several B01001_* variables)
- Rent Burden: Rent burden categories (B25070_007 to B25070_010)
- Economic Indicator: Median Household Income (B19013_001)

2.2. Eviction Data

Eviction data was obtained from Eviction Lab and includes monthly eviction filings for New Mexico at the census tract level. The specific variable used is:

- **filings_avg:** The average filings for a given GEOID (census tract) over the baseline years for that month. This data was provided as a monthly CSV file, and I used the average filings measure to calculate an eviction rate relative to the overall state average.

3. Methodology

To measure displacement risk, I first collected ACS data for New Mexico at the census tract level. This dataset provided key indicators such as housing tenure (renters and homeowners), racial/ethnic composition, age groups (seniors and children), rent burden, and median household income. I then computed the proportions of each demographic group relative to the total population and derived risk factors including rent burden and income disparity (comparing each tract's income to the state average).

In parallel, eviction data from Eviction Lab was obtained, which includes the average number of eviction filings per census tract (filings_avg) over baseline years. I calculated a relative eviction rate for each tract by comparing its average filings to the overall state average.

$$Eviction\ Rate = \frac{filings\_avg_{tract}}{filings\_avg_{state}}$$

Next, the two datasets were merged by census tract (using GEOID). Finally, I developed a ***Displacement Risk Score (DRS)*** for each tract as a weighted composite of four factors: Rent burden is the proportion of renters paying a high percentage of their income on rent. Income Disparity is the ratio of the tract's median income to the state average. The inversion for income disparity and homeownership ensures that tracts with lower incomes or lower homeownership rates (which are indicators of higher vulnerability) contribute more to the overall risk score.

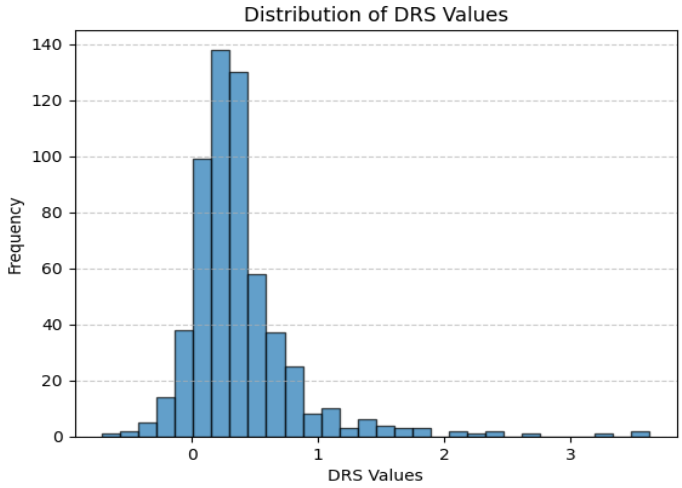
This score, along with risk measures scaled by the share of each demographic group, forms the basis of my analysis on which populations are most at risk of displacement.

$$DRS = 0.3\ \times Rent\ Burden + 0.3\ \times (1 - Income\ Disparity) +$$
$$0.2\ \times \left(1 - \frac{Homeowners}{Renters + Homeowners}\right) + 0.2\ \times Eviction\ Rate$$

This formula ensures that lower incomes, higher rent burdens, lower homeownership rates, and higher eviction rates contribute more significantly to displacement risk.

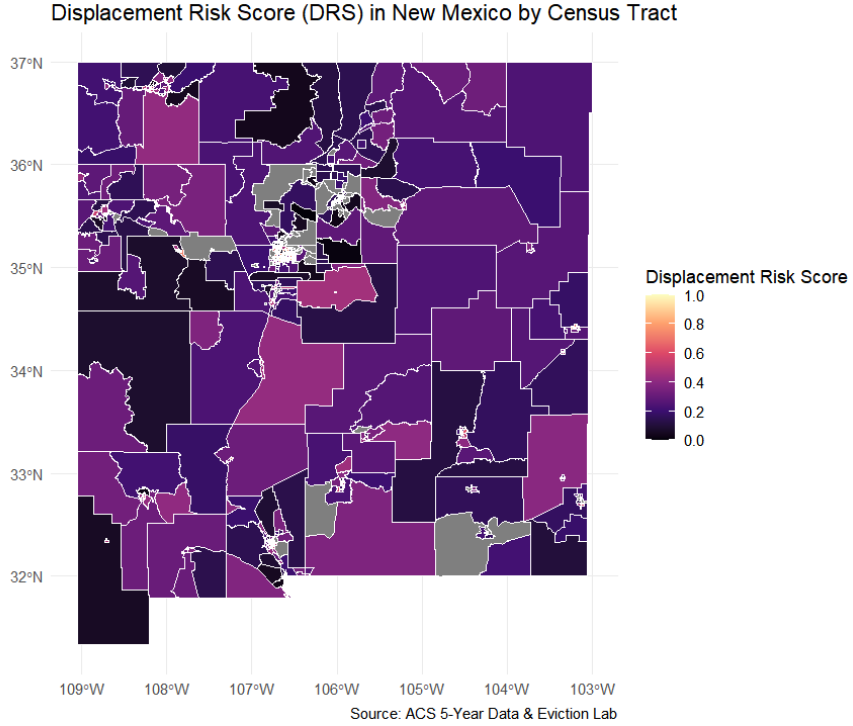
4. Displacement Risk Score (DRS) Results

4.1. Distribution of DRS Values



	DRS
count	593.000000
mean	0.382147
std	0.452424
min	-0.711792
25%	0.146130
50%	0.298106
75%	0.485284
max	3.624281

The mean DRS is 0.3821, with values ranging from -0.7117 to 3.624. Most tracts fall within a moderate risk range (0 to 1), though a few outliers face significantly higher risks.



4.2 Group-Specific DRS

Following the overall distribution findings, it is also instructive to compare how specific groups fare in terms of displacement risk:

1. Homeowners vs. Renters

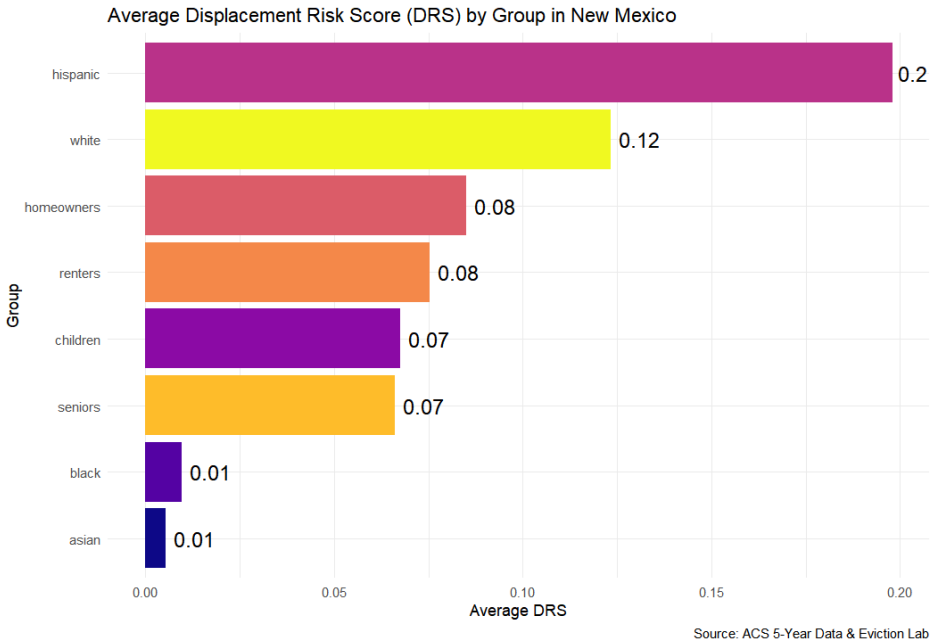
Renters and homeowners have comparable DRS values (~0.08), with homeowners marginally higher. This outcome may seem counterintuitive, given the common perception that homeownership provides more housing stability. However, in areas like New Mexico, where housing costs and property taxes have risen rapidly, homeowners on fixed or limited incomes can face mounting financial pressure. Maintenance expenses and the relative difficulty of selling a home quickly can also increase vulnerability, causing homeowners' displacement risk to converge with (or even exceed) that of renters.

2. Racial/Ethnic Groups

Among racial/ethnic categories, Hispanic residents have the highest average DRS at 0.20, followed by White residents at 0.12. In contrast, Black and Asian residents each register notably lower DRS values of 0.01. These disparities may reflect broader socioeconomic and historical factors. Hispanic communities in New Mexico often experience lower median incomes, higher poverty rates, and may be located in areas undergoing rapid development or gentrification. These conditions can compound housing insecurity and increase the likelihood of displacement.

3. Children and Seniors

Both groups have a DRS of ~0.07, indicating moderate risk. Their displacement vulnerability is heightened by limited income and mobility challenges. Children and seniors may be less resilient to displacement impacts due to limited income or mobility, underscoring the need for age-focused policies and support services.



Overall, these group-specific DRS patterns highlight how rising housing costs, property tax burdens, and longstanding socioeconomic inequalities contribute to varying degrees of displacement risk across New Mexico's diverse communities. Although most census tracts fall into a moderate risk range, certain populations, particularly homeowners under financial strain and Hispanic communities facing multiple economic pressures, may require targeted policy interventions to mitigate the potential for displacement.

5. Identifying the top high-risk tract: Bernalillo County

5.1. County-Level Trends

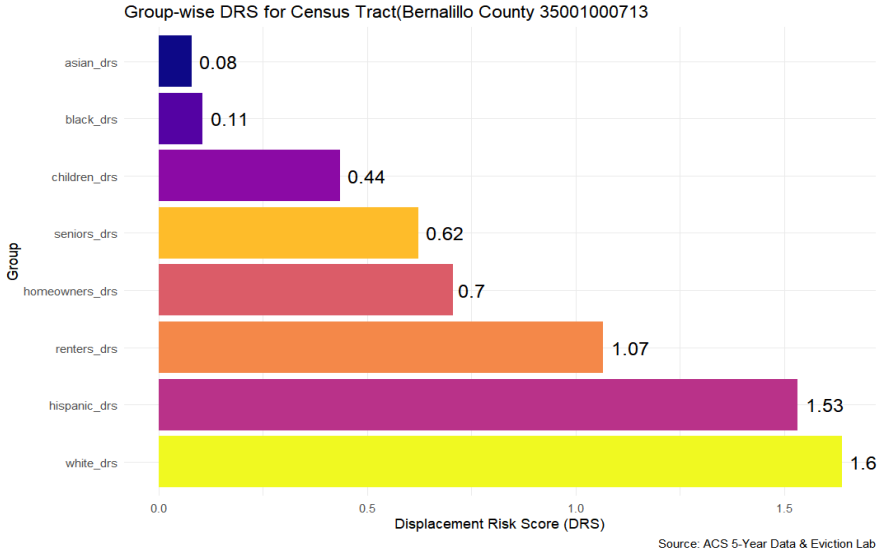
Bernalillo County, home to Albuquerque, consistently emerges as a high-risk region due to a combination of housing, economic, and environmental factors:

- Housing Crisis: Rent and home prices have surged 60% and 70% (2017–2024), exacerbating affordability issues and increasing displacement risk.
- Environmental Hazards: Low-income communities face heightened risks from pollution, wildfires, and flooding, adding to their vulnerability.
- Socioeconomic Vulnerabilities: Persistent poverty and high Hispanic population concentrations contribute to displacement pressures, particularly in rapidly developing neighborhoods.

5.2. Tract-Level Insights

A closer examination of Census Tract 35001000713 reveals:

- Hispanic Residents: DRS of 1.53, reflecting the impact of lower median incomes and rising housing costs.
- Renters and White Residents: DRS of 1.07, underscoring financial instability for both groups.
- Homeowners: DRS of 0.70, highlighting economic challenges despite ownership.
- Seniors and Children: DRS values of 0.62 and 0.44, emphasizing moderate risk for these vulnerable age groups.



6. Conclusion

This study highlights the multi-faceted nature of displacement risk in New Mexico. Hispanic residents, renters, and lower-income homeowners face the highest risks, particularly in high-cost, environmentally vulnerable areas like Bernalillo County. Rising housing costs, eviction pressures, and socioeconomic disparities are key displacement drivers.

Policy Implications:

- Affordable Housing Initiatives: Expanding affordable housing and rent control measures can reduce displacement pressures.
- Targeted Assistance: Financial relief programs for low-income homeowners and renters can improve housing stability.
- Community-Based Interventions: Investments in minority and low-income neighborhoods can mitigate long-term displacement risks.

By integrating census and eviction data, this study provides a data-driven framework for identifying and addressing displacement risk. Future research should explore longitudinal trends in eviction rates and housing instability to develop predictive models that can inform proactive policy solutions.